

"An Essay  
on  
Inflammation  
Presented to the Faculty  
of the  
Homoeopathic Medical College of Penna.  
for the  
Degree of Doctor of Medicine  
By  
J. L. Pennock  
Chestnut Square  
Pa.

Phila. Feb. 1867—



## Inflammation

Among the many subjects which engross the attention of the practitioner, there is none of so vital importance to the physician, the surgeon, or patient, as the one under consideration. For it is intimately connected with nearly all diseases, and very often constitutes the chief source of danger.

Hence the importance of a thorough knowledge of its cause, origin, progress, and terminations, the symptoms by which it may be recognized, and the remedies that may be used to control, or modify its



action. Again it is of importance to know when and how to promote its action, for it is the groundwork, the corner stone, the key note of the surgeons success in making amputation after injuries, in restoring the broken limb, in removing congenital deformity, and with artistic hand filling up the hideous void — bringing back the long lost beauty ever to stand as a monument of the surgeons power.

Hence at one time it is the source of the greatest blessing, giving restoration to body & limb, at another the cause of the greatest evil in destroying not only tissues and structures, but life itself. The question arises,



What is inflammation? It is a morbid action; characterized by heat, pain, swelling, and redness.

Or it may be defined a morbid excitement, which transcends the bounds of irritation, embracing all those changes which commence when irritation ceases, and end with the loss of life, or the restoration of the part to health.

Inflammation may be defined a diseased, or perverted condition of the blood, and blood vessels, attended with changes in the part, and frequently disturbance to the general system. This transition from health to disease is characterized by various phenomena. — In the first place, we have simple vascular excitement



or determination in which there is a contraction of the capillaries and blood vessels, through which the circulation is increased, immediately following this condition there is active congestion, with a dilation of the blood vessels, and increased amount of blood to the part, the circulation becomes less rapid, the coats of the vessels loose their tenacity, and give way under pressure. — The blood itself undergoes changes, the fibrin, serum, liquor sanguinis are increased with a tendency to the exudation of plastic materials.

This is the stage of active congestion, which the surgeon desires, and expects to accomplish his hopes after his most important



operations. In true inflammation we have a combination of vascular excitement, and active congestion. (or rather these are primary steps in the morbid chain) and closely following there is a tendency to stagnation. The capillaries are destroyed, or their power is lost for the time. The coats have become thickened and changed, the corpuscles adhere together and occupy every part of the distended blood vessels. The capillaries give way with effusion of blood, and a breaking down and disintegration of tissues follow, depending on the intensity of the inflammatory action.

The local symptoms of heat, pain, swelling, and redness do not always



exist. The redness varies in proportion to the intensity of the cause, the nature of the inflammation, the vascularity of the effected tissues.

It may possess all shades of color, from the slightest tint, or flush, to a deep red or purple, often very bright in one spot decreasing until the redness is lost in the healthy color of surrounding tissues. This redness is owing to an influx of blood in the part, and increases as the inflammatory process proceeds, and decreases as the part returns to health, with this redness there is an increased amount of heat in the part, this heat is caused by an increased amount of blood in the capillaries, and the great vital action, and is increased



7  
in proportion to the intensity of the exciting cause.

Pain another accompaniment of inflammation is sometimes so slight as not to be perceived by the patient, other times it is exquisitely severe, sometimes dull, other times sharp, burning, lancinating, throbbing.

This pain is owing to pressure on the nerves, or to some unexplained state or condition of the nervous system. Thus in neuralgia, we have severe pain when there is no indication of inflammatory process.

Again pain may be sympathetic manifesting itself at some point distant from the seat of disease. Being conveyed to the spinal cord, thence transmitted by sensory nerves



that are distributed to parts distant from the seat of disease.

The swelling like the pain differs under different circumstances, often slight when it affects mucus membrane or enormous when its location is the lymphatic glands. It may be prominent, flat, diffused or circumscribed, depending on an influx of blood, or an effusion in the tissues. The swelling is always gradual in its development, differing from tumors, dislocations, hernia &c.

In the progress of inflammation there is always some modification of the process of secretion. In the commencing or forming stage, when it has scarce passed the bounds of irritation there is an increase in the normal



secretion of the affected organ, but as the inflammation progresses secretion becomes increased much beyond the natural amount, and the character of the secretion is changed.

Another prominent symptom of inflammation is manifest in the diminishing, or entire suspension of the function of an organ.

Thus in ophthalmia the eye fails to discriminate color, or objects, & the least ray of light causes painful distress. The ear, when in health is charmed with the harmony of sound, in disease is deaf, or painful to the sweetest music.

So it is in Coryza, the sense of smell is lost, In inflammation of the brain we have convulsions, and  
coma,



precursory symptoms of speedy dissolution.

Increased sensibility is a prominent characteristic of inflammation, in certain diseases of the intestinal organs as in peritonitis and gastritis, the sensibility is so great as to render the slightest pressure a source of pain. Like effects are observed in external disease, as boil, erysipelas &c, the inflamed surface becomes extremely sensitive to the touch. Hence this tenderness, or extreme sensibility becomes a distinguishing mark, a diagnostic symptom of great importance in determining the character of disease.

Again closely connected with this, we have increased irritability, as in irritation of the stomach when inflammation of the intestines exist



The causes of Inflammation are as numerous, and varied, as the circumstances, with which we are surrounded, — whatever makes a morbid impression on the nervous, or physical system, or disturbs the uniformity of the circulation is capable of laying the ground work for disease, — Thus the suppression of perspiration from the cutaneous surface is often productive of consequences fatal to life. —

The causes of inflammation are divided by pathologists into predisposing and exciting.

By predisposing is meant, that peculiarity of constitution or condition of body, which disposes to the action of disease, or is favorable to the



development of inflammation, without provoking it. Thus we see the predisposing causes manifest in the strumous diathesis, where that peculiar taint of the system produces inflammation of the lymphatic glands, the production of tubercles in the lungs, or insidiously invades some other part of the system, with alike fatal results. Rheumatism, gout, scrofula, pulmonary phthisis, constitutional syphilis, and as many other diseases are transmitted, & thus become so many prolific sources of inflammation.

Exciting causes are those which immediately produce disease, or excite to action predisposing causes.

They act in two ways — directly upon the part, or indirectly upon the system, and may be divided into



local, and constitutional.

Local causes are divided into chemical & mechanical: Chemical, such as high degrees of heat, the application of caustic substances, blisters, and certain specific agents, as those of small pox, syphilis &c. all of these agents act directly upon the part, destroying & exciting inflammation.

Mechanical causes embrace wounds, fractures, dislocations, injuries, & the presence of foreign substances.

Constitutional causes effect the system by indirectly impressing some remote structure, thus the influence of a Tropical sun in producing inflammation of the intestinal organs, or impression of cold on the cutaneous surface, producing Pneumonia. —



Sometimes the blood itself is a source of inflammation, when it is overloaded with irritating substances, as in pyemia, or is deficient in healthy constituents, & unfitting it to support life and healthy nutrition. —

Again it is caused by sympathy, and metastasis—perhaps owing to some sympathy or peculiarity of the nervous system of which little is known.

Inflammation of whatever character or grade commences at a single point, & extends to surrounding structures.— sometimes confined to a small surface or spot, other times spreading with such rapidity as to endanger life, or the destruction of the part. It is hastened by the



vascularity of the part, & extends by continuity and contiguity of structures, by nervous sympathy, and by absorption through the blood vessels, a frequent example of the latter is seen following the wounds from a foul lancet.

Inflammation may be acute or chronic, healthy or unhealthy, common, specific, or latent.

Acute attacks are characterized by well marked signs, running a swift course, manifesting local & constitutional symptoms.

Chronic inflammation is marked by slowness and feebleness of action, and is often the sequel of acute.

Healthy when it proceeds to restoration and reparation (as in the healing of wounds) Unhealthy when it



proceeds to suppuration, or gangrene.

It is common when it follows common causes. Specific when it is the result of a specific cause, as in small pox or syphilis.

Latent when it is concealed from observation, and not marked by the usual phenomena. Inflammation has two modes of termination.—one in health, the other in disease. The former occurs by resolution, the latter by gangrene, and mortification. By resolution when the cause is removed, the inflamed part returns gradually without suppuration to the healthy condition.

By gangrene when the morbid action continues till vitality is lost. The absorption of fluids, the exudation



of coagulable lymph, the formation of pus, suppuration, granulations, cicatrization, ulceration, softening & induration are all so many links in the morbid chain, so many states, or conditions of the inflammatory process, which belongs to one of the above mentioned terminations.

In inflammation the morbid action may be so slight as not to be recognized by the system, but if the action is severe, or invades an important organ, the whole system becomes sympathetically affected, the phenomena now exhibited is symptomatic of the suffering of the organ.

The length of time that expires until constitutional manifestations appear, may be from a few hours to



several days, depending upon the intensity of the exciting cause, the importance of the organ effected, and the state of the system.

The constitutional manifestations are, a general uneasiness & depression of spirits, a sense of lassitude, indisposition to mental or physical exertion, headache, pain in the back, joints and limbs, bad taste in the mouth, loss of appetite, chilliness changing with flushes of heat. These are the precursory symptoms in the morbid chain, a state bordering on disease. When the morbid action becomes fully established, the pulse is full, hard, increased in strength, frequency and quickness, countenance flushed, eyes red, skin hot



and dry. The digestive organs are very much deranged, the tongue is always affected, sometimes red, generally coated and dry. The salivary secretion is suspended, there is thirst, nausea, vomiting, gastric oppression, bowels constipated, or relaxed, the secretions and excretions are changed.

If the morbid cause ceases all these symptoms will gradually subside. On the other hand if the disease progresses: the inflammatory type assumes the typhoid condition—The pulse becomes weak and frequent, the countenance shrunken, the extremities cold, sordes on the teeth, tongue dry, hicough, subsultus tendinum, clammy perspiration and great depression. —————



Happily in the treatment of inflammation we have many remedies by which we may arrest, control, or modify this morbid action. The first indication is to remove the exciting cause, next the establishment of reaction.

It is not always that the cause can be detected, it is often latent, and then the treatment must be prescribed to fulfill the constitutional indications.

Next the promotion of resolution <sup>directly</sup> itself into constitutional & local.

I do not propose dilating upon the old fashioned mode, the Allopathic means of combatting this morbid condition, such as blood letting, mercurials,



cathartics, sedatives, diaphoretics, diuretics, &c the thunder-bolts of darker ages, - blood-letting the antiphlogistic par excellence, the sheet anchor of the old school is rapidly falling into disrepute, how could it be otherwise. The doctrines of Hahnemann, the teachings of his many true & tried followers are slowly, yet surely undermining those bulwarks of ignorance, - those doctrines that have held a predominating sway for centuries. Yet they have been weighed in the balance and found wanting, the mysterious teachings of Hahnemann are influencing all. Since his day Allopathy has undergone so wonderful changes. The thousands that have suffered untold agonies



loudly cry for reform, their call has been heard, and Mahmumann bequeathed to posterity a truth that must prevail. The unborn millions shall proclaim him as the greatest medical reformer the world has ever seen.

In the treatment of inflammation, the antiphlogistic regimen should be strictly observed, rest of body and mind, exclusion of light and noise, the prohibition of visitors, temperature & ventilation of the patient's room, cleanliness of body, and change of bed clothing, are all indications of vital importance to which the profession have paid too little attention.

The local treatment consists



of rest, and position, rest may be procured by splints etc. Rest, absolute rest, is the first indication, rest and position are of primary importance in the successful treatment of local inflammation.

Local bleeding in every form we discard as useless & injurious. Cold and warm applications, are sometimes admissible— medicated waters are thought to be of advantage in some cases, those remedies however must be used, that are at the same time given for the constitutional treatment, repeating the application simultaneous with that given for constitutional indications—

Next we pass to the constitutional treatment of inflammation, which



in our practice, is the most important part. — though but little need be said upon this subject. If we strictly adhere to or follow the laws laid down by Hahnemann we cannot fail. — there are many remedies that may be used in the treatment of inflammation. By these remedies rightly selected the profession is enabled to do much in arresting the morbid action, relieving pain, restoring and conducting to a successful termination that which would otherwise result in suffering and death.

Thus we have viewed very hastily the process of a diseased action, which breaks in upon the grand and harmonious



working of organized structures,  
interrupting their healthy action,  
destroying tissues—demolishing  
that sublime machine—whose  
every part should vibrate in  
truest harmony. We have noticed  
some of the means to be employed  
to control or modify its action,  
though much can be done to  
arrest its progress, yet we have  
no specific Calm, to allay the  
burning fever, or check the destructive  
progress. But whether it attacks  
with malignant violence, or pursues  
by slow, yet constant hectic  
steps till wasting is complete  
in death—we as instruments  
in a noble profession, can  
allerviate those burning pains that



torment the sufferer, and  
when medical aid ceases - can  
breathe into the ear of the suffering  
pitiful strains of human  
tenderness, and by actual  
sympathy give relief.

J. L. Pennock M.D.  
Phila.